

Project Name: Information Technology Infrastructure Recovery
OCIO Project #:
Department: California Highway Patrol
Revision Date:

Concept Statement

Description

Brief description of the proposed project:

The goal of the Information Technology Infrastructure Recovery Project is to establish a permanent hot site for computer operations to be used in case of an emergency which renders inoperable the current California Highway Patrol (CHP) computer room at 2200 X Street in Sacramento. The hot site would be located at an alternate facility which would mitigate the issue of a single point of failure and would create a disaster recovery processing site within a separate facility. This site will provide for the rapid recovery of computer systems as identified in the Disaster Recovery Plan and would sustain mission critical CHP technology.

Need Statement

High Level Capabilities Needed:

The hot site would provide a fallback computer room should the existing operation at 2200 X Street fail. As a node on the existing CHP communications network, the hot site would become the processing center for all mission critical systems. Through the use of continuous synchronization and the use of virtually instant failover technology, CHP will migrate its production processing to the hot site.

What is Driving This Need?

For emergency response organizations such as CHP, critical business systems must be available and operational regardless of the emergency. In the event of a disaster, there will be no time to provision a facility, acquire equipment, wait for communications lines to be installed and initiate system recovery processes. The need is immediate. A lengthy IT outage would compromise the health and safety of citizens within the State of California.

Risk to the Organization if This Work is Not Done:

If denied, CHP will continue to pursue its mission in the manner it is pursuing it today. CHP will try to undertake individual projects to meet the needs described in the section above. Unfortunately, CHP will run the continued risk of losing the primary processing site which, if it happens, will endanger the lives of officers in the field.

Project Name: Information Technology Infrastructure Recovery
OCIO Project #:
Department: California Highway Patrol
Revision Date:

Concept Statement

Benefit Statement

Intangible Benefits

Process Improvements (describe the nature of the process improvement):

The following benefits will be obtained through this project:

- Replicates existing computer functionality which provides an opportunity for future load balancing and mirrored data processing between the primary CHP processing site and the proposed hot site.
- Utilizes existing CHP facilities without having to procure a new facility.
- Minimizes the implementation process as the hot site replicates existing hardware/software.
- Ensures on-going processing capabilities for CHP in case of a disaster.
- Provides for a secure computer room under the control of CHP personnel

Other Intangible Benefits:

Tangible Benefits

Revenue Generation (describe how revenue will be generated):

This project will not generate an increase in revenue.

Cost Savings (describe how cost will be reduced):

This project will not generate a cost savings.

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement


Cost Avoidance (describe the cost and how avoided):

Risk Avoidance (describe the risk and how avoided):

This project will reduce the risks officers face in the field when the central processing site is unavailable. Currently when the central processing site is unavailable, the CHP connection to the California Law Enforcement Telecommunications System (CLETS) is also unavailable. When CLETS is unavailable all CHP officers in the field are unable to check if the vehicle they have just stopped is a known stolen vehicle and if the driver is a wanted felon.

Improved Services:

Consistency

"No" Responses 		Rationale	Action Required
Enterprise Architecture	Yes		
Business Plan	Yes		
Strategic Plan	Yes		

Impact to Other Agencies

Nature of Impact to Other Agencies

Agency:

Describe the nature of the impact:

None.

Agency:

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement

Describe the nature of the impact:

Agency:

Describe the nature of the impact:

Agency:

Describe the nature of the impact:

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement

Solution Alternatives

Alternative 1:

This alternative creates the CHP hot site within the CHP Headquarters campus at 601 N. 7th Street in Sacramento. For this alternative, CHP would purchase necessary hardware and corresponding software licenses and install the equipment in an existing secure computer room within this facility. Telecommunications links would be established to support continuous replication services and failover technologies. The facility will have adequate emergency power capabilities as part of the existing Emergency Notification and Tactical Alert Center (ENTAC).

Technical Considerations for Alternative 1:

This in-house solution makes use of an existing 24/7 CHP site and leverages emergency power and cooling capabilities. This solution also accommodates the various security requirements and allows access to the CLETS network. The one-time start-up cost for this alternative is \$3,300,000 or approximately \$1,200,000 less than Alternative 2. In addition, on-going costs are projected to be \$1,500,000 or \$500,000 per year less than Alternative 2.

ROM Cost: \$3.5M to \$3.9M

Note: high end of range must not exceed 200% of low end of range

Alternative 2:

This alternative creates the CHP hot site within a commercial vendor's backup/recovery facility. For this alternative, CHP would purchase necessary hardware and corresponding software licenses and install the equipment in secure cages within the commercial facility. The commercial vendor would not provide telecommunications circuits. They would be installed and maintained through existing telecommunication vendor contracts with CHP.

Technical Considerations for Alternative 2:

This solution would include the need for CHP to monitor off-site security. It precludes access to the CLETS network. The one-time start-up cost for this alternative is \$5,151,952 or approximately \$1,200,000 more than the proposed alternative. In addition, on-going operational costs are projected to be \$2,000,554 or \$500,000 per year more than the proposed alternative.

ROM Cost: \$4.7M to \$5.2M

Note: high end of range must not exceed 200% of low end of range

Alternative 3:

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement

Technical Considerations for Alternative 3:

ROM Cost:

to

Note: high end of range must not exceed 200% of low end of range

Recommendation

Comparison:

Alternative 1	ROM Cost	Risk
Implement hot site at the CHP Headquarters facility.	\$3.5M - \$3.9M	<input type="checkbox"/> CHP personnel would need to be allocated to operate the hot site. <input type="checkbox"/> CHP would be required to buy all hardware and software for the hot site.
Alternative 2	ROM Cost	Risk

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement

Implement hot site at a commercial vendor's location.	\$4.7M - \$5.2M	<input type="checkbox"/> Hot site is not operated by CHP personnel. Security and physical access requirements may present significant operational issues. <input type="checkbox"/> CLETS connection would not be allowed at a non-certified data center. <input type="checkbox"/> CHP must buy hardware and software for hot site. <input type="checkbox"/> CHP must provide additional security equipment at vendor facility. <input type="checkbox"/> Minimum contract is three to five years.
Alternative 3	ROM Cost	Risk
	\$0 - \$0	

Conclusions:

1	Alternative 1 has a lower cost and least risk.
2	
3	
4	

Project Name: Information Technology Infrastructure Recovery

OCIO Project #:

Department: California Highway Patrol

Revision Date:

Concept Statement

Recommendation:

Approve the Feasibility Study Report for this project.

Concept Approach (if known)

System Complexity:			System Business Hours: (e.g., 24x7, 9am-5pm) : 24x7	
Architecture	<input type="checkbox"/> Mainframe	<input checked="" type="checkbox"/> Client Server	<input type="checkbox"/> Web Based	Num. of New Databases:
Technology	<input type="checkbox"/> New	<input type="checkbox"/> New to Staff	<input checked="" type="checkbox"/> In-House Experience	Interfaces:
Implementation	<input checked="" type="checkbox"/> Central Site	<input type="checkbox"/> Phased Roll-out		Num. of Sites:
M & O Support	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Data Center	<input checked="" type="checkbox"/> Project	<input type="checkbox"/> Returned to Sponsor
Procurement Approach: (consult with OSI Procurement Center)				Number of Procurements: 1
Open Procurement?	Yes	Delegated Procurement?		
Scope of Contract	<input checked="" type="checkbox"/> Development	<input checked="" type="checkbox"/> Implementation	<input checked="" type="checkbox"/> M & O	<input type="checkbox"/> Other: _____
Anticipated Length of Contract:		Years /	extensions for	years